

Office Action Summary

Application No.

10/033,883

Applicant(s)

YAO ET AL.

Examiner

Roy M. Punnoose

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 1, 2 and 3 recite the limitation “scanning processor unit.” This limitation is not defined, described or disclosed in the specification.

NOTE: For examination purposes, it is assumed that the applicant is referring to a “scanner device” in all instances of “scanning processor unit” in this application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “scanning processor unit” of claims 1-3 must be shown or the feature canceled from the claims. No new matter should be entered.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign not mentioned in the description: The reference sign 100 of Figure 1 is not disclosed in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because claim 1 states that the driver device receives the driver signal and accordingly drives the scanning processor (assumed to be “scanner device” for examination purposes; see item 1 above). But from the direction of the arrow on the line

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connecting the scanner device and the driver device in Figure 1, it appears that the scanner device is driving the driver device instead of the driver device driving the scanner device.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 7 and 10 are objected to because of the following informalities: From the way claims 7 and 10 are structured, it gives the appearance that they are directed to a method of using applicants claimed device. Appropriate correction is required.

Note: For examination purposes, it is assumed that the applicant's intent was to state that

"... wherein the sample is chemical or biological in nature" in claims 7 and 10.

(Marked-up version: "... wherein the sample [test] is [~~applied on a sample of~~] chemical or biological in nature.")

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1-3 recite the limitation "scanning processor unit." This limitation is not defined, described or disclosed in the specification.

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8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation of "... a controller device that is coupled with the scanning processor unit ..." (see line 11 of claim 1) creates a doubt if said controller device is directly coupled with the scanning processor unit (assumed to be "scanner device" for examination purposes; see item 1 above) in addition to the controller device's coupling with "a computing unit," or, if said controller device is coupled indirectly (via the driver device) with the scanning processor unit. Accordingly, the above limitation has rendered the claim vague and indefinite. Appropriate correction is required.

Note: For examination purposes, it is assumed that the controller device is coupled with the scanning processor unit via the driver device.

10. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation that "... the scanning processor unit further comprises a scanner device that scans the testing support ...". This creates doubts as to the number of scanner devices in the apparatus because, according to claim 1, the scanning processor unit also scans the testing support. This creates the perception that there are at least two scanner devices

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in the apparatus, which is not disclosed or described in the specification or shown in the drawing. Accordingly, the above limitation has rendered the claim vague and indefinite. Appropriate correction is required.

Note: The scanning processor unit is assumed to be a “scanner device” for examination purposes. See item 1 above.

11. Claim 2 recites the limitation "the test signal" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation that "... the scanning processor unit further comprises a scanner device that scans the testing support ..." and since this is a second scanner device in addition to the scanning processor unit of claim 1, and since there is no prior reference of a "test signal" that is outputted by said scanner device, there is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein (US_4,554,460).

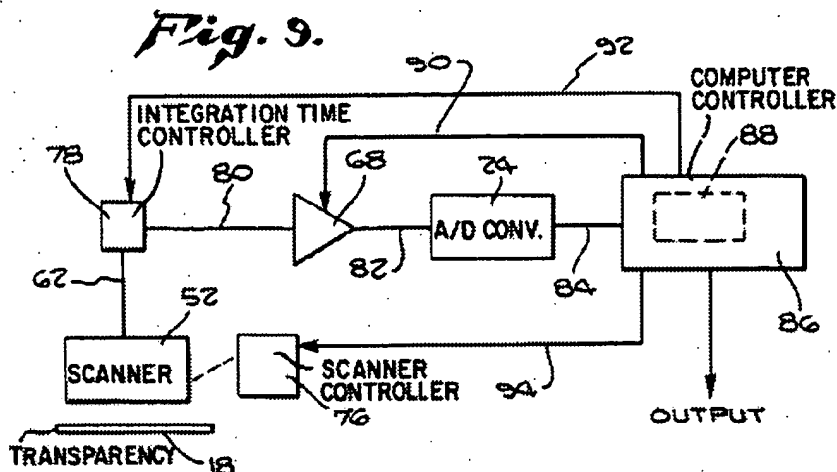


Figure 9 of the Klein Patent (US_4,554,460) is shown above.

14. Claims 1, 3 and 4 are rejected because:

Klein discloses a scanning analyzer unit comprising:

A). A scanning processor unit 52 that scans the testing support 18, wherein the scanning processor unit 52 outputs a test signal 62 resulting from the scan of the testing support 18 (see Figure 9);

a signal amplifier 68 that is coupled with the scanning processor unit 52 to amplify the test signal 62, 80;

an analog/digital converter 24 that is coupled with the signal amplifier 68 and the computing unit 86, wherein the analog/digital converter 24 converts the amplified test signal 82 into a digital signal 84 that is transferred to the computing unit 86;

a computing unit 86 (see col.5, line 21) that is coupled with the scanning processor unit 52, wherein the computing unit 86 receives and analyzes the test signal 62;

a controller device 86 that is coupled with the scanning processor unit 52, wherein the controller device 86 outputs a driver signal 94; and,

a driver device 76 that is coupled with the controller device 86 and the scanning processor unit 52, wherein the driver device 76 receives the driver signal and accordingly drives the scanning processor unit 52 to accomplish the scan of the testing support 18 (see col. 5, lines 10-30), the scanning analyzer used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test (see col. 1, lines 6-31).

However, Klein does not teach of a scanning analyzer apparatus comprising separate computing unit and controller device for analyzing the test signal from the scanning processor unit and controlling a driver device based on the scanning processor unit output, the scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test.

B). Klein teaches of a scanning analyzer apparatus comprising a combined computing unit and controller device 86 for analyzing the test signal from the scanning processor unit 52 and controlling a driver device 76 based on the scanning processor unit output 62 (see Figure 9; see col. 5, lines 10-30), the scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test.

C). In view of Klein's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Klein's apparatus by having a separate computing unit and a controller device due to the fact that such separate computing and controlling units would provide a modular system where each module can easily be replaced for repair and/or maintenance of the scanning analyzer apparatus, used for analyzing testing results that are

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obtained from a testing support for determining spectral quality of a sample under test.

Accordingly, such modification would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art.

D). In view of Klein's teaching of scanning of one type of testing support such as a transparency for determining spectral quality of a sample under test, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select any other type of testing support such as a testing support that uses color separation to accomplish sample testing for determining spectral quality of said sample under test in a scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test. Accordingly, such a selection of an alternate type of testing support and/or sample would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art.

Note: For examination purposes, it is assumed that:

- (i) the applicant is referring to a "scanner device" in all instances of "scanning processor unit," and,
- (ii) the controller device is coupled with the scanning processor unit via the driver device.

15. Claims 2 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein (US_4,554,460) in view of what is commonly known in the art.

16. Claim 2 is rejected because:

A). Klein teaches all claim limitations as disclosed above, except for the explicit teaching of the use of a second scanner device scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test.

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B). In view of Klein's teaching of at least one scanner device in a scanning analyzer apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Klein's apparatus to have two or more scanner devices due to the fact that such a plurality of scanner device units would provide a modular system where each module can easily be replaced for repair and/or maintenance of the scanning analyzer apparatus without bringing an entire system down, said system used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test. Accordingly, such modification would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art.

17. Claims 5, 6, 8 and 9 are rejected because:

A). Klein teaches all claim limitations as disclosed above, except for the explicit teachings of an interface unit such as a standard RS-232 interface, that is placed between the computing unit and the controller device to enable signal transfer between the computing unit and the controller device.

B). Providing interface unit between various computing units and controller devices are old and commonly known in the art. And, RS-232 interface is "standard" as disclosed in claims 6 and 9 of the instant application, which means that the RS-232 interface is "Prior Art" according to said claims.

C). In view of what is commonly known in the art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an interface unit such as a standard RS-232 interface that is placed between the computing unit and the controller device to enable signal transfer between the computing unit and the controller device in a

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scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test. Accordingly, such incorporation would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art.

18. Claims 7 and 10 are rejected because:

A). Klein teaches all claim limitations as disclosed above including providing a test sample/test support 18 in a scanning analyzer apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test.

B). In view of Klein's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a sample that is chemical or biological in nature, or any other type of sample for testing using Klein's apparatus because it is obvious that if one type of sample can be tested on an apparatus, many types of samples can be tested using the same or similar apparatus used for analyzing testing results that are obtained from a testing support for determining spectral quality of a sample under test. Accordingly, such inclusion would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art.

Conclusion.

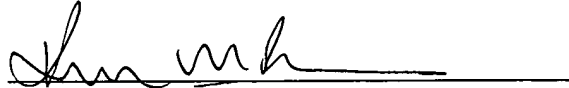
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner Roy M. Punnoose** whose telephone number is **571-272-2427**. The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the applicant can reach his *Supervisory Patent Examiner, Frank G. Font*, at 571-272-2415.

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The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular and After Final communications.

Any inquiry of a **general nature** or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(571) 272-1585**.

A handwritten signature in black ink, appearing to read 'Roy M. Punnoose', is written over a horizontal line.

Roy M. Punnoose
Patent Examiner
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March 30, 2004